A.F. OUTPUT PENTODE

Pentode intended for use as A.F. power amplifier.

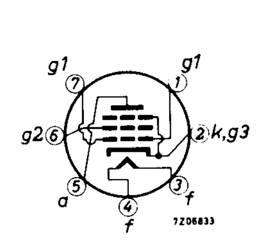
QUICK REFERENCE DATA			
Anode current	I_a	24	mA
Transconductance	S	5.4	mA/V
Amplification factor	μ_{g2g1}	17	
Output power	W_o	3	W

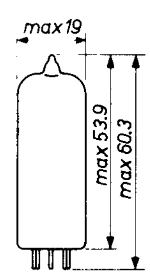
HEATING: Indirect by A.C. or D.C.; series supply

Heater current	I_f	300 mA
Heater voltage	V_f	4.5 V

DIMENSIONS AND CONNECTIONS — Dimensions in mm

Base: miniature 7-pin





CAPACITANCES

Anode to all except grid No.1	$C_{a(g1)}$		3.5	pF
Grid No.1 to all except anode	$C_{g1(a)}$		5.3	pF
Anode to grid No.1	C_{ag1}	max.	0.4	pF
Grid No.1 to heater	C_{g1f}	max.	0.2	pF

TYPICAL CHARACTERISTICS

Anode voltage	V_a	250	V
Grid No.2 voltage	V_{g2}	250	V
Grid No.1 voltage	V_{g1}	-9.0	V
Anode current	I_a	24	mA
Grid No.2 current	I_{g2}	4.5	mA
Transconductance	S	5.4	mA/V
Amplification factor	μ_{g2g1}	17	
Internal resistance	R_i	70	kΩ

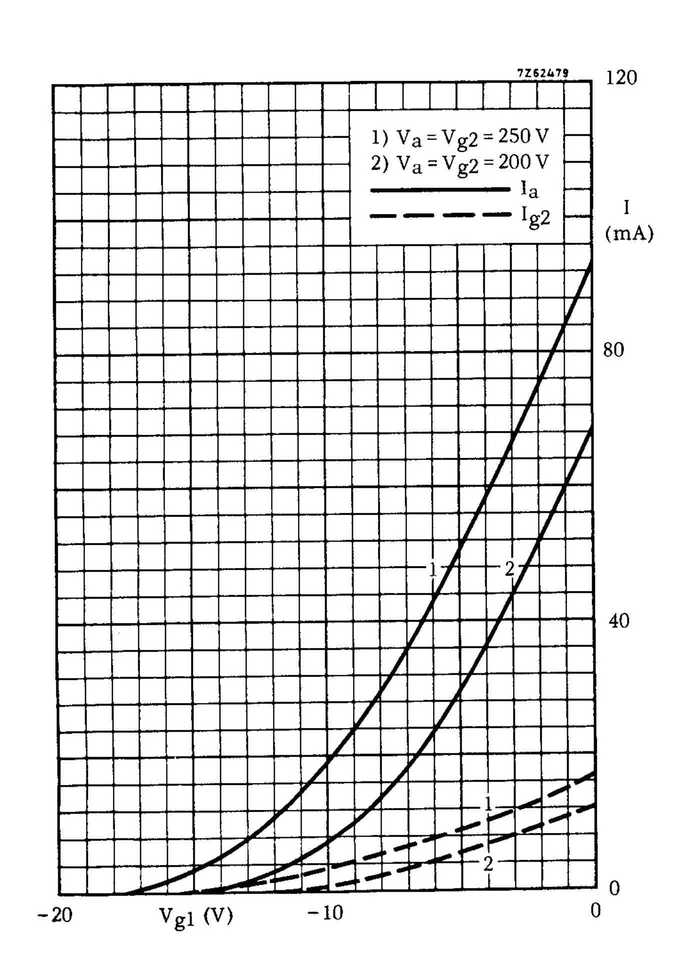
OPERATING CHARACTERISTICS

Class A

Anode voltage	V_a	200	250	V
Grid No.2 voltage	V_{g2}	200	250	V
Cathode resistor	R_k	230	320	Ω
Anode current (V_i = 0)	I_a	23	24	mA
Grid No.2 current (V_i = 0)	I_{g2}	4.2	4.5	mA
Load resistance	$R_{a\sim}$	8	10	kΩ
Grid No.1 driving voltage	V_i	4.5	5	V_{RMS}
Output power	W_o	2.3	3.0	W
Distortion	d_{tot}	10	10	%
Grid No.1 driving voltage for W_o = 50 mW	V_i	0.50	0.50	V_{RMS}

LIMITING VALUES (Design centre rating system)

Anode voltage	V_{a_o}	max.	550	V
	V_a	max.	300	V
Grid No.2 voltage	V_{g2_o}	max.	550	V
	V_{g2}	max.	300	V
Anode dissipation	W_a	max.	6	W
Grid No.2 dissipation				
average at V_i = 0	W_{g2}	max.	1.25	W
peak	W_{g2_p}	max.	2.5	W
Cathode current	I_k	max.	35	mA
Grid No.1 resistor, automatic bias	R_{g1}	max.	2.2	MΩ
Cathode to heater voltage	V_{kf}	max.	200	V


7Z62479
1) $V_a = V_{g2} = 250$ V
2) $V_a = V_{g2} = 200$ V
I_a
I_{g2}
I (mA)
120
80
40
0
1
2
1
2
-20
V_{g1} (V)
-10
0

7Z62485

V_{g2} = 250 V

W_a = 6 W

I_a (mA)

V_{g1} = 0 V

-2 V

-4 V

-6 V

-8 V

-10 V

-12 V

-14 V

V_a (V)

7Z62486

V_{g2} = 200 V

W_a = 6W

I_a (mA)

V_{g1} = 0 V

-2 V

-4 V

-6 V

-8 V

-10 V

-12 V

V_a (V)

7Z62480

V_a = 250 V
V_{g2} = 250 V
R_k = 320 Ω
$R_{a\sim}$ = 10 kΩ

I (mA) / d_{tot} (%): 0, 10, 20, 30, 40

V_i (V): 0, 2, 4, 6, 8

W_o (W): 0, 0.5, 1, 1.5, 2, 2.5, 3

I_a, V_i, d_{tot}, I_{g2}

7Z62482

V_a = 200 V
V_{g2} = 200 V
R_k = 230 Ω
$R_{a\sim}$ = 8 kΩ

I (mA) / d_{tot} (%): 0, 10, 20, 30, 40

V_i (V): 0, 2, 4, 6, 8

W_o (W): 0, 0.5, 1, 1.5, 2, 2.5, 3

I_a, V_i, d_{tot}, I_{g2}



PL95

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6	6	1972.01
7	FP	1999.03.19